



DEQ AIR QUALITY PROGRAM  
1410 N. Hilton, Boise, ID 83706  
For assistance, call the  
Air Permit Hotline – 1-877-5PERMIT

# PERMIT TO CONSTRUCT APPLICATION

RECEIVED

Revision 3  
03/26/07

OCT 15 2007

Please see instructions on page 2 before filling out the form.

**All information is required. If information is missing, the application will not be processed.**

## IDENTIFICATION

1. Company Name	LJD Holdings, Inc.
2. Facility Name (if different than #1)	B&D Foods
3. Facility I.D. No.	01-00162
4. Brief Project Description:	Replace existing fryer

## FACILITY INFORMATION

5. Owned/operated by: (✓if applicable)	<input type="checkbox"/> Federal government <input type="checkbox"/> County government <input type="checkbox"/> State government <input type="checkbox"/> City government
6. Primary Facility Permit Contact Person/Title	David M. Durkin, Vice-President
7. Telephone Number and Email Address	208-344-1183 ext. 504: ddurkin@banddfoods.net
8. Alternate Facility Contact Person/Title	Gary W. Shaw, Chief Administrative Officer
9. Telephone Number and Email Address	208-344-1183 ext. 206: gshaw@banddfoods.net
10. Address to which permit should be sent	P.O. Box 16450
11. City/State/Zip	Boise, Idaho 83715
12. Equipment Location Address (if different than #10)	3491 S. T.K. Ave.
13. City/State/Zip	Boise, Idaho 83705
14. Is the Equipment Portable?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
15. SIC Code(s) and NAISC Code	Primary SIC: 2038    Secondary SIC (if any):    NAICS: 31141
16. Brief Business Description and Principal Product	Value added protein food processing company
17. Identify any adjacent or contiguous facility that this company owns and/or operates	Administrative offices located at 3243 S. Federal Way, Suite B, Boise, Idaho 83705

## PERMIT APPLICATION TYPE

18. Specify Reason for Application	<input type="checkbox"/> New Facility <input type="checkbox"/> New Source at Existing Facility <input type="checkbox"/> Unpermitted Existing Source <input checked="" type="checkbox"/> Modify Existing Source: Permit No.: 050006    Date Issued: June 9, 2006 <input type="checkbox"/> Permit Revision <input type="checkbox"/> Required by Enforcement Action: Case No.:
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## CERTIFICATION

IN ACCORDANCE WITH IDAPA 58.01.01.123 (RULES FOR THE CONTROL OF AIR POLLUTION IN IDAHO), I CERTIFY BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION IN THE DOCUMENT ARE TRUE, ACCURATE, AND COMPLETE.		
19. Responsible Official's Name/Title	David M. Durkin, Vice President	
20. RESPONSIBLE OFFICIAL SIGNATURE		Date: 5-16-07
21. <input checked="" type="checkbox"/> Check here to indicate you would like to review a draft permit prior to final issuance.		

## PREFACE

Following is a description of our project for which we need a permit to modify our permitted system. The existing system is permitted under permit# 050006, 6/09/06. We are replacing an existing hot oil cooker which is over 20 years old with a new unit which has better filtration qualities on the exhaust portion of the unit which should equate to less overall emissions from the system. The only difference in the entire overall system is the new cooker will be fired with a 1.8 million BTUH natural gas burner versus 1.5 BTUH unit on the existing cooker. Attached is a system schematic for the whole project and you can see that nothing has changed but the size of the burner in the new cooker. The cooker exhaust, as well as the oil filter unit exhaust are taken through a dry fume scrubber and then through the existing Maxon incinerator which is natural gas fired and is 99.99% efficient. Our calculations are following this description covering your requirements.

### PROCESS DESCRIPTION

Raw meat which has been cut into processing size, is first dusted with a flour and flavoring mix and then sent through a liquid battering machine. The product is then put in a continuous conveyor type hot oil cooker. As it exits the fryer it is sent across a shaker which removes crumbs and excess oil. The product then is sent through another batter machine and cooked a second time in another conveyor type continuous cooker. The product exits the cooker and is conveyed to a low temperature spiral freezer prior to packaging and distribution.

## DATABASE INFORMATION

Following is the data from the fryer manufacturer, B & D Foods and anything pertinent to the proper operation of the frying system.

### COOK TIME;

#### Normal Processing Schedule:

Eight (8) to Twelve (12) hours per day

Six (6) days per week

Fifty (50) weeks per year

#### Maximum Processing Schedule:

Sixteen (16) hours per day

Seven (7) days per week

These cook times would be for short periods, lasting from a few days to a week or two (2)

### FINISHED PRODUCT PARAMETERS

Pounds produced per hour, normal schedule, 2,700 to 3,000

Meat by weight, 50% to 55%

Batter, 45% to 50%

Oil carry out, 10 to 14% of batter weight, ( 150 lbs per hour)

NOTE: The above data is based on production rates with the new fryer installed.



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 04/03/07

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COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER			
1. Company Name LJD Holdings, Inc. dba B and D Foods			
2. Facility Name B and D Foods		3. Facility ID No. 001-00162	
4. Brief Project Description - One sentence or less Food Processing, meat products			
PERMIT APPLICATION TYPE			
5. <input type="checkbox"/> New Facility <input type="checkbox"/> New Source at Existing Facility <input type="checkbox"/> Unpermitted Existing Source			
<input checked="" type="checkbox"/> Modify Existing Source: Permit No. P-050006 Date Issued: 6/9/06			
<input type="checkbox"/> Required by Enforcement Action: Case No.:			
6 <input checked="" type="checkbox"/> Minor PTC <input type="checkbox"/> Major PTC			
FORMS INCLUDED			
Included	N/A	Forms	DEQ Verify
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form GI – Facility Information	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form EU0 – Emissions Units General	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU1 - Industrial Engine Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU2 - Nonmetallic Mineral Processing Plants Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU3 - Spray Paint Booth Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU4 - Cooling Tower Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU5 – Boiler Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form HMAP – Hot Mix Asphalt Plant Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form CBP - Concrete Batch Plant Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form BCE - Baghouses Control Equipment	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form SCE - Scrubbers Control Equipment	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Forms EI-CP1 - EI-CP4 - Emissions Inventory-- criteria pollutants (Excel workbook, all 4 worksheets)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	PP – Plot Plan	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Forms MI1 – MI4 – Modeling (Excel workbook, all 4 worksheets)	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form FRA – Federal Regulation Applicability	<input type="checkbox"/>

DEQ USE ONLY	
Date Received  10/15/07 AQ Division	
Project Number	
Payment / Fees Included? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Check Number 23722 + 23973	



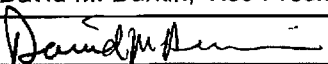
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19. Responsible Official's Name/Title	David M. Durkin, Vice President
20. RESPONSIBLE OFFICIAL SIGNATURE	 <div style="float: right;">Date: <u>5-16-07</u></div>
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Emissions Unit - General Form EU0

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IDENTIFICATION						
Company Name: B & D FOODS, INC.		Facility Name: Same as Company		Facility ID No: 001-000162		
Brief Project Description:						
EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION						
1. Emissions Unit (EU) Name:		Hot Oil Cooker, Eclipse burner				
2. EU ID Number:		P/N IJ004NTXCN XXXXXXXXXX, S/N0722 1955-0001-1				
3. EU Type: NG Burner		<input type="checkbox"/> New Source <input type="checkbox"/> Unpermitted Existing Source <input checked="" type="checkbox"/> Modification to a Permitted Source -- Previous Permit #:			Date Issued:	
4. Manufacturer:		Eclipse Burner				
5. Model:		4" IJ, Version 2				
6. Maximum Capacity:		1.8 millin BTUH				
7. Date of Construction:		June 2006				
8. Date of Modification (if any)		10/01/07				
9. Is this a Controlled Emission Unit?		<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If Yes, complete the following section. If No, go to line 18.				
EMISSIONS CONTROL EQUIPMENT						
Control Equipment Name and ID:						
11. Date of Installation:		12. Date of Modification (if any):				
13. Manufacturer and Model Number:						
14. ID(s) of Emission Unit Controlled:						
15. Is operating schedule different than emission units(s) involved?		<input type="checkbox"/> Yes <input type="checkbox"/> No				
16. Does the manufacturer guarantee the control efficiency of the control equipment?		<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, attach and label manufacturer guarantee)				
Control Efficiency	Pollutant Controlled					
	PM	PM10	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.						
EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)						
18. Actual Operation		Eight to Twelve hr./day, 6days/wk, 50 wks./yr.				
19. Maximum Operation		12 hrs/day, 50 wks./yr. 6 days/wk.				
REQUESTED LIMITS						
20. Are you requesting any permit limits?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, check all that apply below)				
<input type="checkbox"/> Operation Hour Limit(s):						
<input type="checkbox"/> Production Limit(s):						
<input type="checkbox"/> Material Usage Limit(s):						
<input type="checkbox"/> Limits Based on Stack Testing		Please attach all relevant stack testing summary reports				
<input type="checkbox"/> Other:						
21. Rationale for Requesting the Limit(s):						



### Emissions for b and d foods

	Oct 2007	Total
Natural Gas (MMBtu)	962.3	962.3
CO <sub>2</sub> (tons)	56.3	56.3
NO <sub>x</sub> (lbs)	144.3	144.3
N <sub>2</sub> O (lbs)	2.1	2.1
SO <sub>2</sub> (lbs)	0.6	0.6
PM <sub>10</sub> (lbs)	1.8	1.8
VOC (lbs)	5.2	5.2
CO (lbs)	23.1	23.1
Hg (lbs)	*	*
Cd (lbs)	*	*
Pb (lbs)	*	*

\* Amount is less than 0.05 lbs.

Emission factors were calculated in 1998 in a federal study done by the Leonardo Academy. Emissions values here are calculated for your information only.



## FUEL BURNING EQUIPMENT

## REGULATED SOURCES

### HOT OIL HEATERS

#### Burner# 1

This burner fires thru a firing tube located in the cooking tank which is in direct contact with the cooking oil and the product being cooked. A description of the burner is in the burner section of this application.

Manufacturer: Eclipse

Model: 4" I J. Version 2

Rated Heat Capacity: 1.80 MMBtu/hr.

Fuel Type: Natural Gas

The Eclipse burner is very similar to the previous Maxon burner but has a capacity of 300,000 Btuh more than the Maxon unit.

#### Stack Specifications

Stack height (ft.): 34

Stack diameter (ft.) 0.667

Stack exhaust gas temperature (Degrees F) 785

Stack exhaust gas flowrate (acfm) 2278

#### Burner# 2

This burner remains as before. There are no changes.

Manufacturer: Maxon

Model: #422M

Rated heat capacity 1.44 MMBtu/hr

Fuel type: Natural Gas

#### Stack Specifications

Stack height (ft.): 33

Stack diameter (ft.): 0.833

Stack exhaust gas temperature (Degrees F) 785

Stack exhaust gas gasflow rate (acfm) 1852

#### Mist Eliminator Section

This portion, referred to as the scrubber, has an all stainless steel housing with the internals supplied by Amistco. The former scrubber had the internals supplied by Munters Corporation

Manufacturer: Amistco Separation Products, Inc.  
Model: Item# 10101, TM-1109  
Efficiency: 99.9%

#### Incinerator Section

Manufacturer: Maxon Corporation  
Model: NP-II, Combust-A-Fume  
Rated heat capacity: 1.5 MMBtu/hr  
Efficiency: 85% for PM 10

Fryer# I Inputs:  
Maximum product input capacity: (T/hr) 2.0  
Normal maximum input capacity:(T/hr) 1.5  
Normal maximum output capacity:(T/hr) 1.23

Facility I.D. # 001-000162

Fryer/Burner #1

Manufacturer: Eclipse

Model No.:4" IJ

Type: Premix

Rated Heat Input: 1.8 MMBTU/hr.

Heat Usage: 100% Process

Fuel Type: Natural Gas

% Sulfur -0-

% ash -0-

% Nitrogen 1-2

% Carbon -0-

% Hydrogen -0-

% Moisture -0-

Heat content: 1K BTU/cu.ft.

Maximum burned/hr.: 330,000/hr.

Burned/yr.: 11,880

Operating Schedule

Hours/Day: 12

Days/Week: 6

Weeks/Year: 50

Stack I.D.: 8.0"

Height: 33.0 ft.

Exit Dia.: 8.0"

Exit Gas Volume: 2,278 acfm

Exit Gas Temp.: 785 degrees F

Criteria Pollutant Estimated Emissions

Particulates: -0- lbs./hr, -0- lbs./yr.

Sulfur Dioxide: 0.00034 lbs/hr., 0.00034 tons/yr.

Carbon Monoxide; 0.0084 lbs./hr., 0.00094 tons/yr.

Nitrogen Oxides: 0.0049 lbs/hr., 0.0051 tons/yr,



Bulletin 330C

9/05

# IMMERSOJET BURNERS

## ***Designed for high performance and convenience.***

ImmersoJet burners fire at high capacities through a small diameter immersion tube. The combustion gases from the burner scrub the inner tube surfaces to produce the highest heat transfer rate of any immersion burner available.

Other ImmersoJet benefits are:

- Produces the industry's highest heat capacities and efficiencies.
- Tube requirements save valuable space inside the tank.
- Comes mounted with a reliable low or high pressure blower for ease of installation.
- Quickly transfers heat to the immersion tube, resulting in lower burner surface temperature.
- Provides faster heat-up times than any other immersion burner.
- Combustion chamber is outside the tank, taking up less space and providing more uniform heat.
- Unique nozzle design ensures quiet operation.

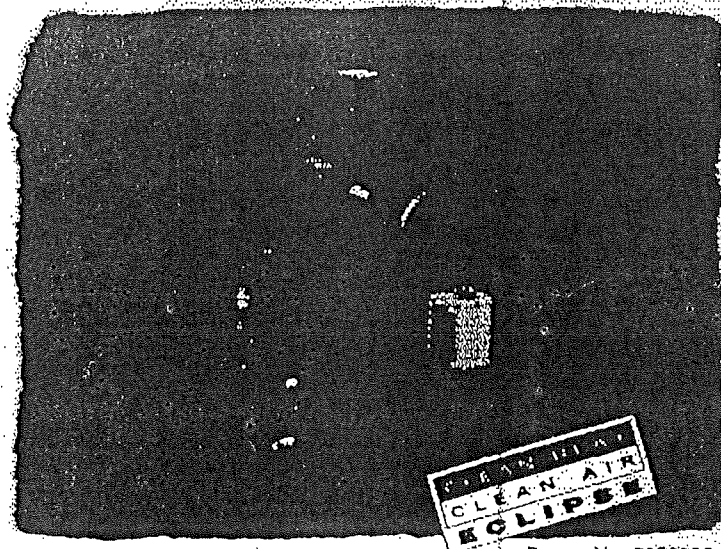
## ***Ideal for retrofits.***

In conventional immersion heating, every cubic inch of a tank is crammed with a bulky, large diameter tube. Replacing this tube with a compact ImmersoJet tube can provide substantial advantages:

- Easier tube fabrication
- Lower tube material costs
- Easier handling and installation
- Reduced fuel costs
- Higher tank temperatures

***Perfect for new tanks, too.***

## ***High-Efficiency Immersion Heating Systems***



Patent No. 6050809  
Patent No. 5934898

By combining high efficiency with small diameter tubes, the ImmersoJet gives you great design flexibility. With ImmersoJet you can:

**Minimize tank size.** Reduce material and fabrication costs, and conserve floor space.

**Reduce operating costs.** Minimize fuel costs, or increase production.

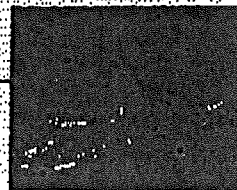
**Reduce area requirements.** ImmersoJet tubes take up less space in a tank, allowing you greater design flexibility.

**Benefit from multi-fuel capability.** Standard burner can be configured for natural gas, propane or butane fuel.

**ECLIPSE**  
Innovative Thermal Solutions

## ImmersoJet Burners

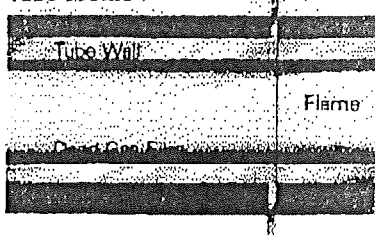
*Provides 80%+ efficiencies and space-saving tube requirements.*



### High Velocity Equals High Efficiency

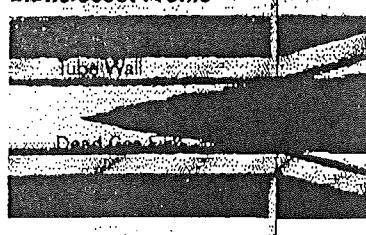
When you compare state-of-the-art ImmersoJet design with conventional immersion burners and tubes, ImmersoJet clearly comes out on top.

#### Conventional Immersion Tube Profile



- A lazy, low velocity flame travels down the tube causing a "dead gas film" to build up on the inside wall, reducing heat transfer efficiency.
- Tube size limits system efficiency potential to 70%

#### Eclipse Combustion ImmersoJet Profile



- A robust, high velocity flame scrubs the inner tube surface, minimizing dead gas film.
- System efficiencies in excess of 80% are possible with smaller tube configurations.

### Equal Heat in Half the Area!

Compare the conventional tube with the tube designed for use with the ImmersoJet, each designed for 70% efficiency with an input of 1 MM Btu/hr. Clearly, the ImmersoJet style tube is much smaller.

If this were a new tank, you could reduce tank size to fit the ImmersoJet tube, saving floor space and material costs.

Or, if floor space permits, you could lengthen the ImmersoJet tube and possibly add another pass in order to achieve efficiencies in excess of 80%.

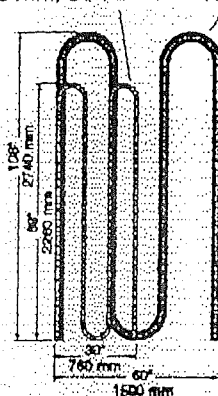
In either case, ImmersoJet provides great flexibility in designing an immersion system that best meets your specific performance and space requirements.

#### ImmersoJet

4" Dia., 30' Long  
76 mm, 9 m

#### Conventional

6" Dia., 37' Long  
150 mm, 11 m



**ECLIPSE**  
Innovative Thermal Solutions

**Eclipse Combustion**

[www.eclipse1.com](http://www.eclipse1.com)

Data 330-4

10/21/05



# ImmersoJet Burners

Model 4" IJ

Version 2

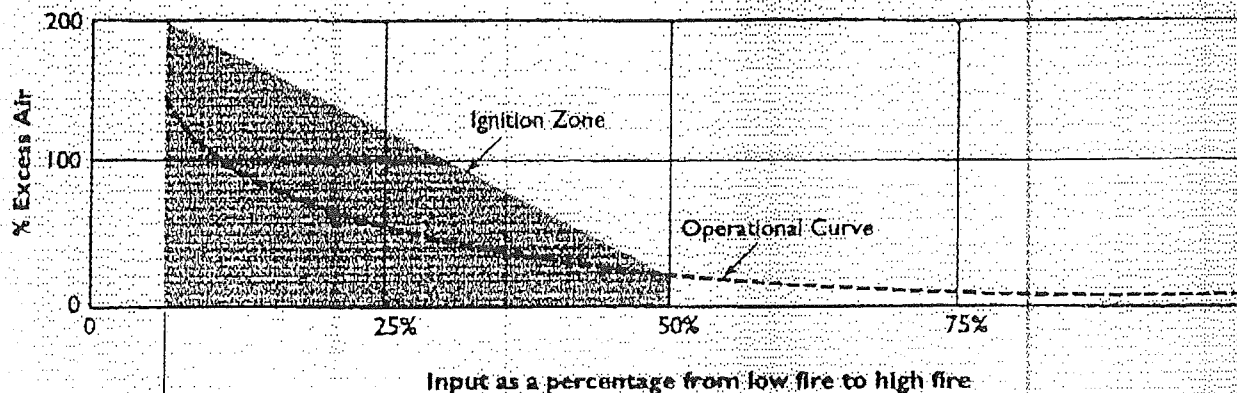
## Main Specifications

PARAMETER		BLOWER SIZE		
Blower Type		6" w.c. Packaged (60Hz)	10" w.c. Packaged (60Hz)	Remote Blower
Maximum Input (Btu/hr)		830,000	1,000,000	1,800,000
Minimum Input (Btu/hr)		100,000	100,000	100,000
Air Inlet Pressure ("w.c.) @Max. Input - Air pressure at burner inlet (Tap "A")		7.8	10.5	33
Blower Motor Horse Power		.5	1.0	As Specified
Main Gas Pressure ("w.c.) into regulator	Max.	125	125	125
	Min.	10	13	34
Tube Backpressure ("w.c.)		3.0	3.8	12.2
Weight-less actuator (lbs)		115	120	75
CO emissions (ppm)		<100	<100	<100
Piping		N.P.T. or B.S.P.		
Flame Detection		Flamerid or U.V. Scanner		
Fuel <sup>(1)</sup>		Natural gas, Propane, Butane For any other mixed gas, contact Eclipse for orifice sizing.		

(1) Different fuels require different nozzles and orifices.

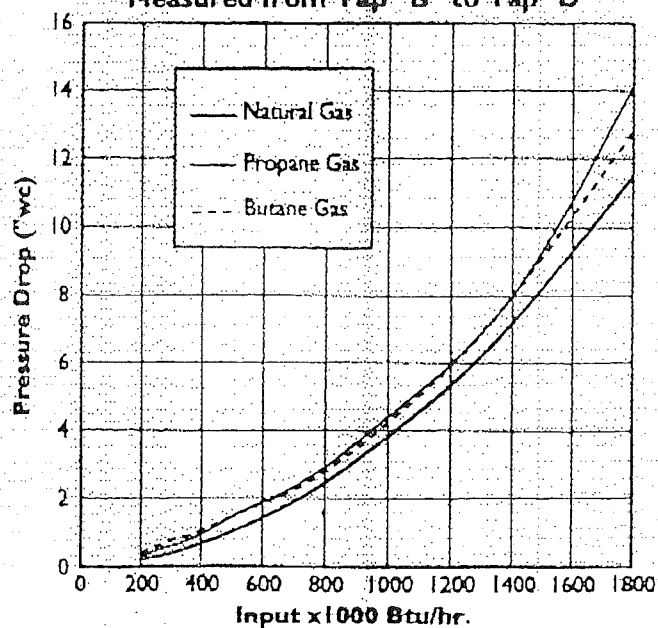
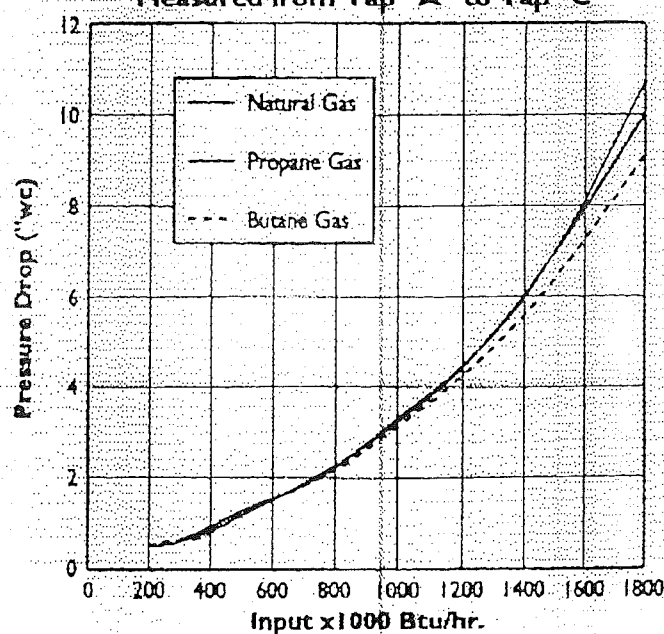
- All information is based on laboratory testing with a tube effective length of 51.75 feet. Different tube sizes and conditions may affect the data.
- All information is based on standard tube design. Changes in the tube will alter performance and pressures.
- All inputs based upon gross caloric values.
- Eclipse reserves the right to change the construction and/or configuration of our products at any time without being obliged to adjust earlier supplies accordingly.
- Plumbing of air and gas will affect accuracy of orifice readings. All information is based on generally acceptable air and gas piping practices.

## Performance Data

Typical Operational Curve & Ignition Zone  
(Nat. Gas, Propane & Butane)

Low Fire:  
100,000 Btu/hr.  
(Regardless of Blower)

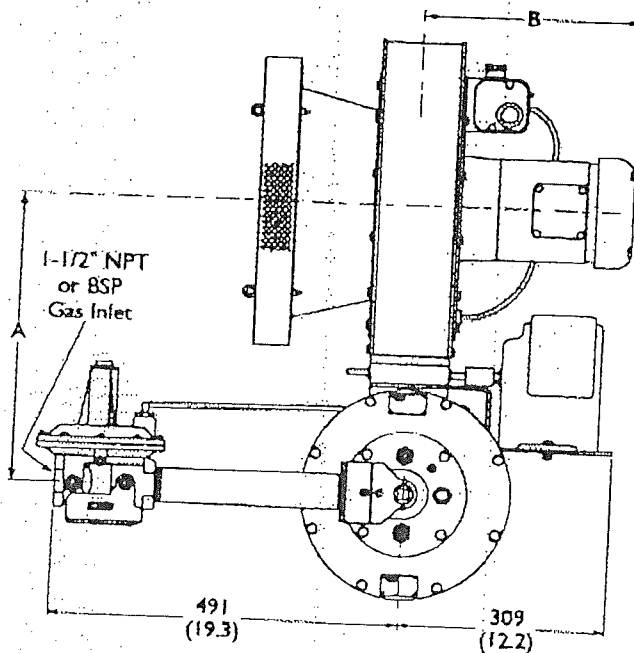
High Fire:  
830,000 Btu/hr (6" w.c. Blower)  
1,000,000 Btu/hr (10" w.c. Blower)  
1,800,000 Btu/hr (Remote Blower)

Gas Orifice  $\Delta P$  vs. Input  
Measured from Tap "B" to Tap "D"Air Orifice  $\Delta P$  vs. Input @ 3% O<sub>2</sub>  
Measured from Tap "A" to Tap "C"

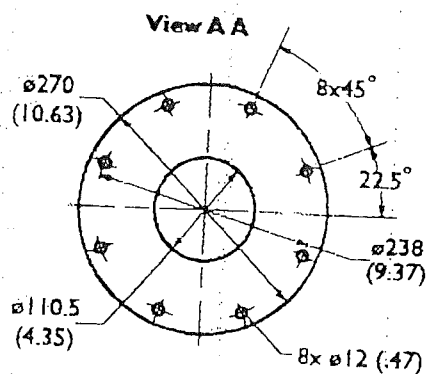
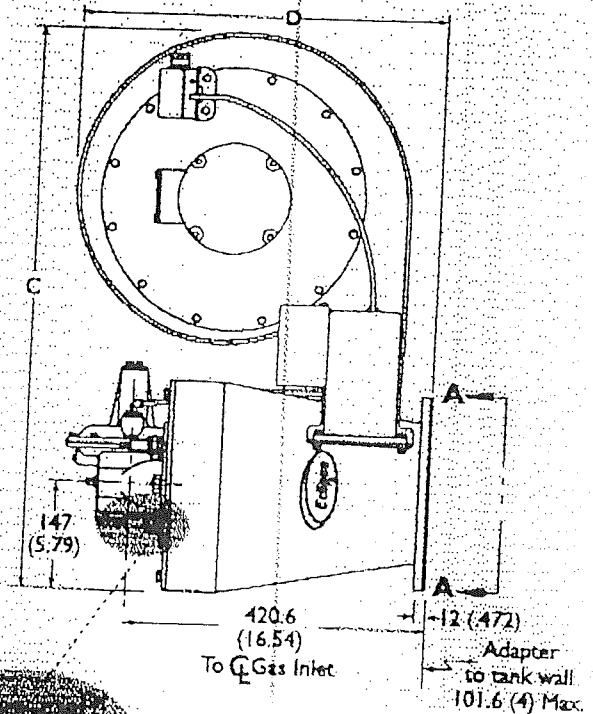


### Dimensions & Specifications

Dimensions in mm (inches)

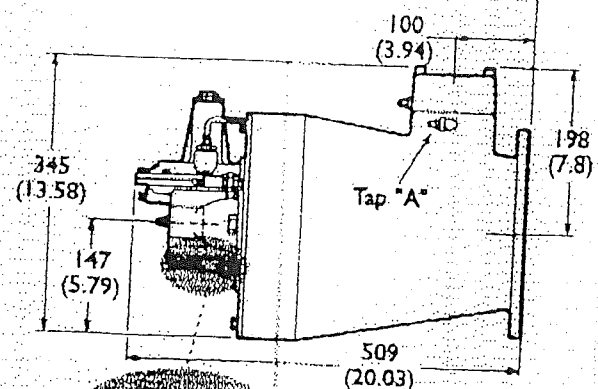
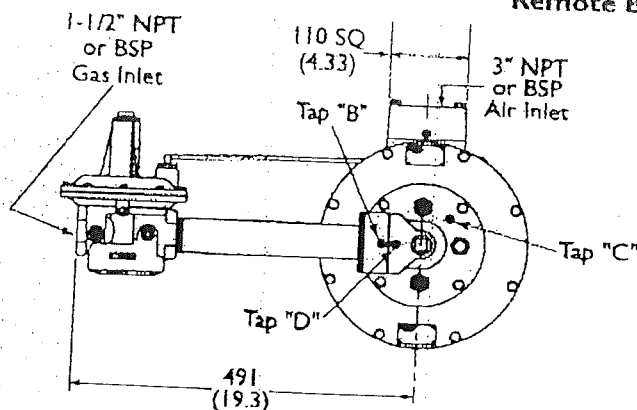


Note: See Remote Blower drawing below for Tap locations.



	A	B		C	D
		60Hz	50 Hz		
Low Pressure Blower	374 (14.70)	315 (12.38)	263 (10.34)	725 (28.50)	452 (17.77)
High Pressure Blower	404 (15.88)	348 (13.68)	304 (11.95)	786 (30.90)	512 (20.13)

### Remote Blower



To: Carl  
Re: AP info

# Appendix

basis:  
design K ~ 0.35

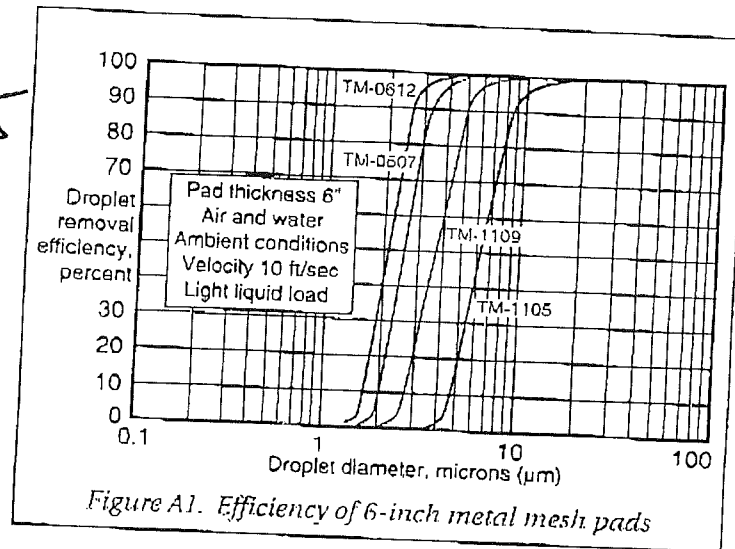


Figure A1. Efficiency of 6-inch metal mesh pads

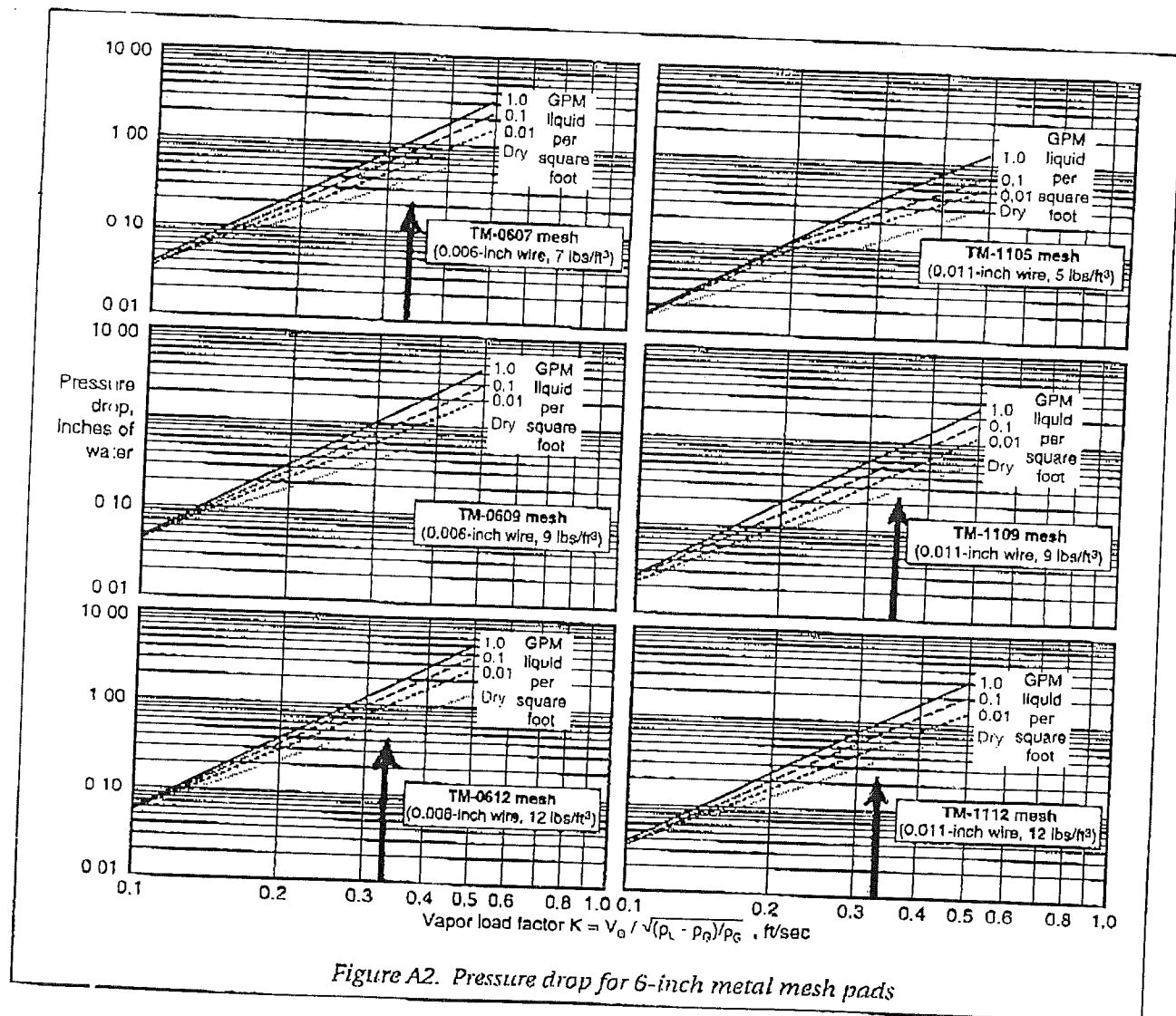
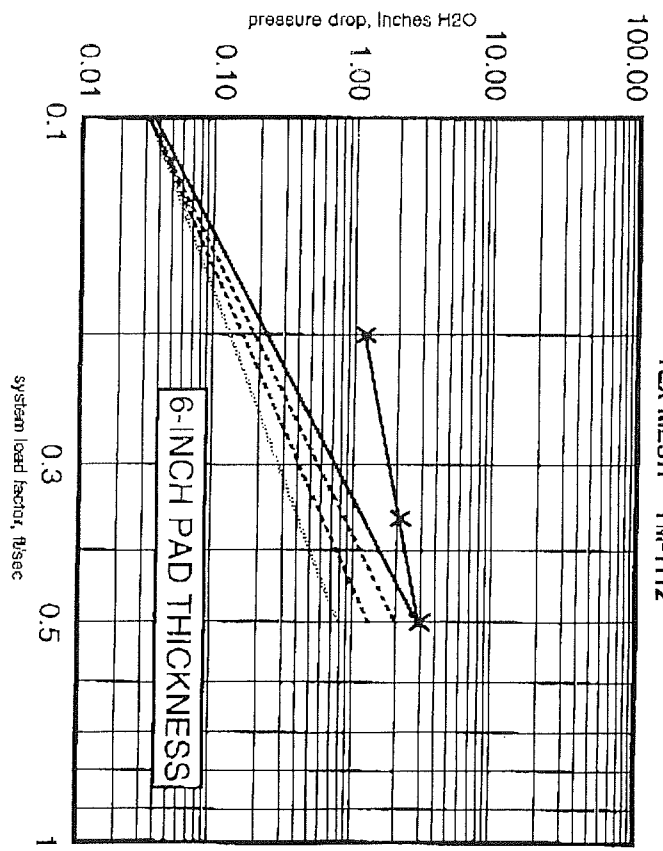
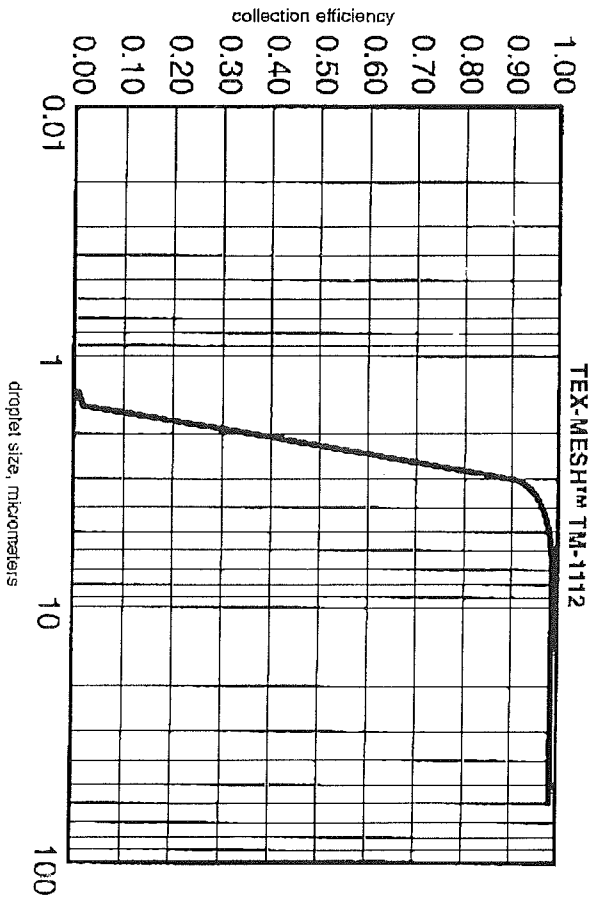
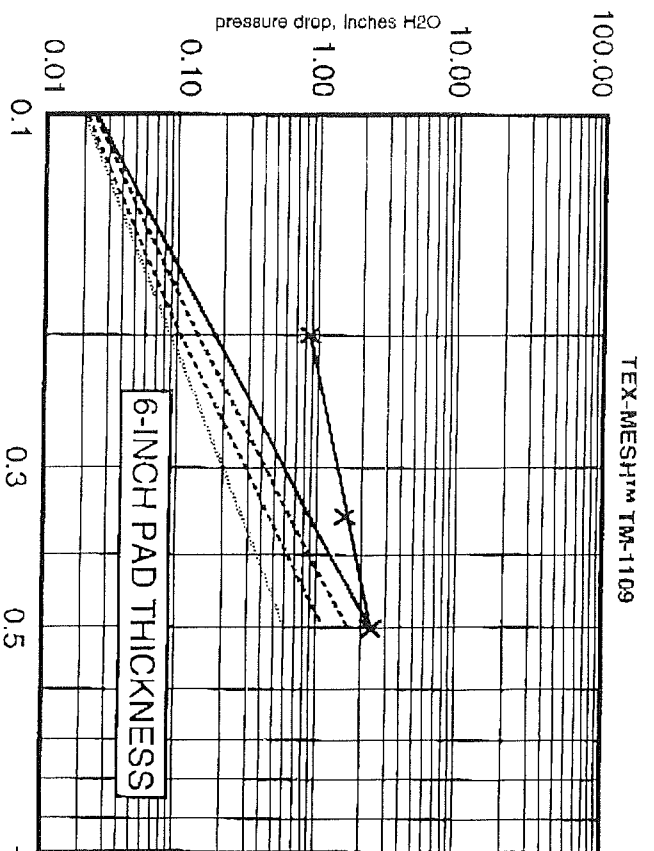
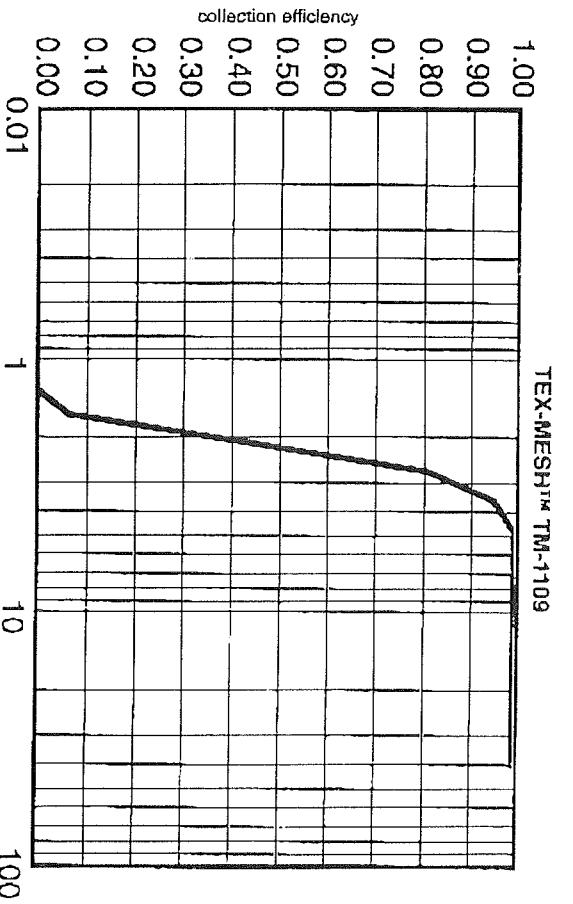


Figure A2. Pressure drop for 6-inch metal mesh pads

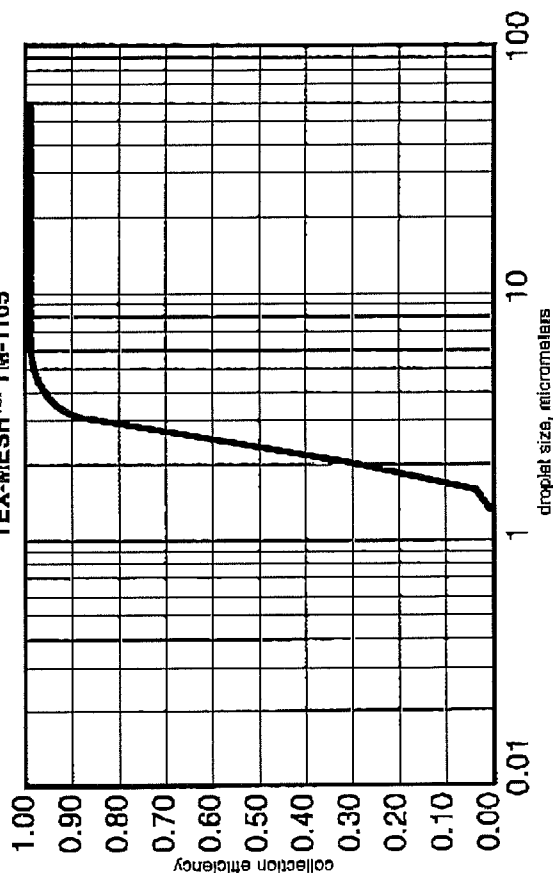


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[www.amistco.com](http://www.amistco.com)  
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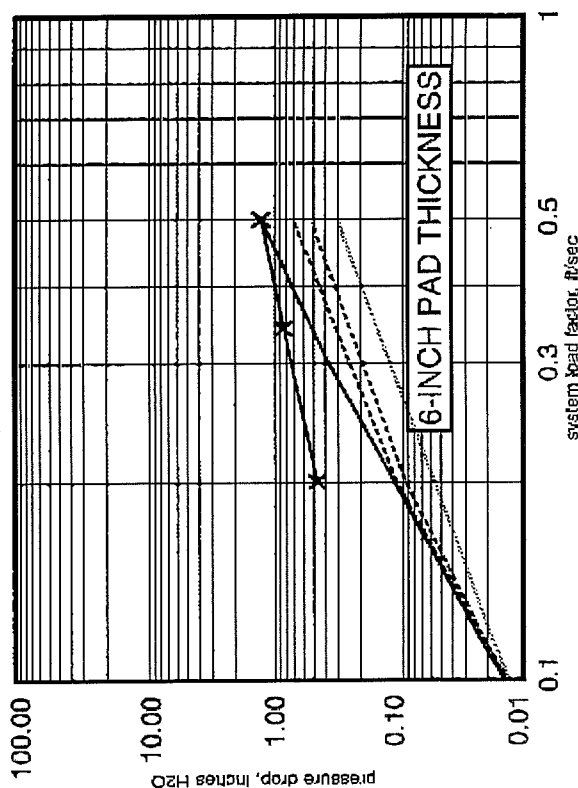
DRY	0.01 GPM/FT <sup>2</sup>	0.1 GPM/FT <sup>2</sup>	1.0 GPM/FT <sup>2</sup>	FT <sup>3</sup> /OD
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				*

# Amistco Mist Eliminator Performance Curves For TEX-MESH™ TM-1105, TM-1109, and TM-1112

TEX-MESH™ TM-1105



TEX-MESH™ TM-1105



## Interpreting Amistco TEX-MESH™ Performance Curves

TEX-MESH efficiency curves express collection efficiency of a 6 inch thick pad as a function of droplet diameter for a vapor velocity corresponding to a system load factor<sup>a</sup> of 0.35 ft/sec. To estimate overall collection efficiency, the pad thickness, system load factor, and droplet-size-distribution must be factored into the estimate.

The effects of pad thickness and system load factor are based on proprietary correlations. Generally, efficiency diminishes significantly for pad thicknesses less than 4 inches and system load factor less than 0.1 ft/sec.

The D99 point is the droplet diameter at which the efficiency curve crosses the 99% line. If the entrained liquid in a gas stream is composed entirely of droplets larger than the D99 diameter, then the overall entrainment removal efficiency of the mist eliminator, properly sized, will be greater than 99.9%. On the other hand, if the droplet-size-distribution overlaps the efficiency curve, then the overall entrainment removal efficiency will be less than 99.9%.

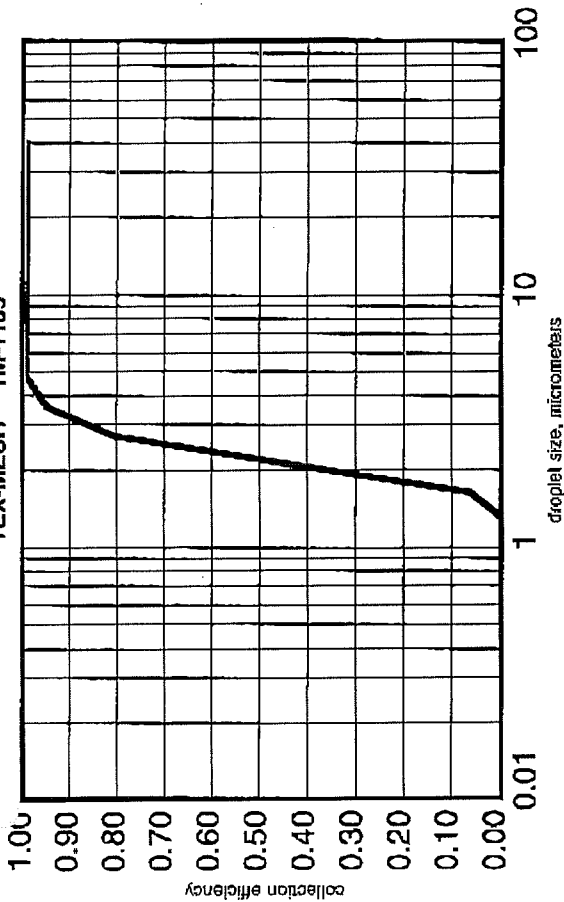
In most design problems concerning entrained droplets, the actual droplet-size-distribution is based on field experience. Entrainment arising from mechanical processes (boiling, two phase processes, seal leakage, surface condensation, etc.) typically produces droplets larger than 20 microns. Entrainment arising from chemical processes (reaction, endogenous condensation, etc.) typically produces droplets in the submicron range.

TEX-MESH performance curves are based on data for an upflow air/water system. Because of differences in the physical properties (densities, viscosities, and surface tension), the actual performance of a given system may be somewhat different from the performance curves. In general, however, most systems are analogous in performance to an air/water system.

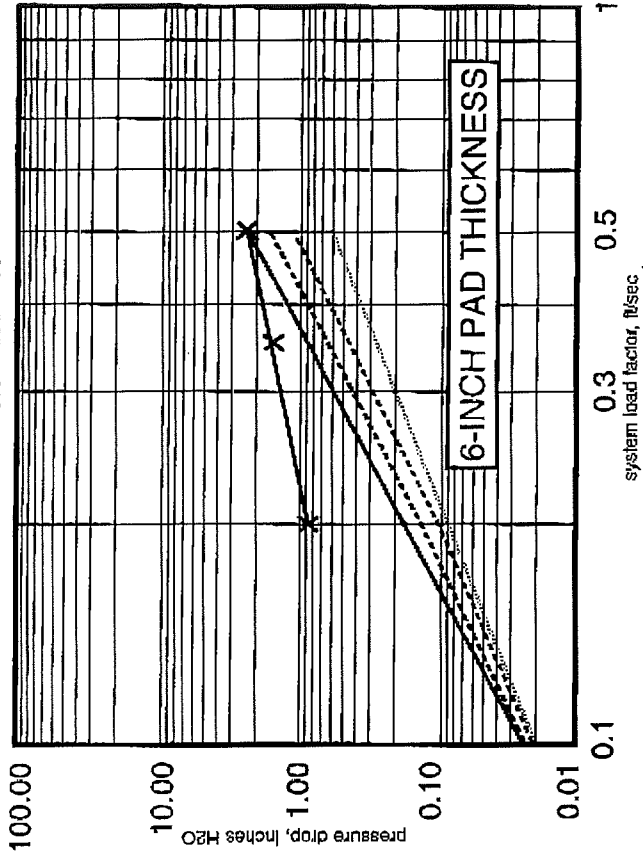
Mist pads for horizontal flow are typically designed for higher velocity (K factor 0.5 ft/sec instead of 0.35 ft/sec for upflow). The resulting collection efficiency will be somewhat higher. Furthermore, crossflow drainage shifts the reentrainment (flood) curve upward somewhat. Consequently, the entrained liquid flux limit (gpm/sqft) is somewhat higher than upflow.

$$* \text{ System Load Factor} = \frac{\text{Vapor Velocity} \times (\text{Vapor density})^{1/2}}{(\text{Liquid density} - \text{Vapor density})^{1/2}}$$

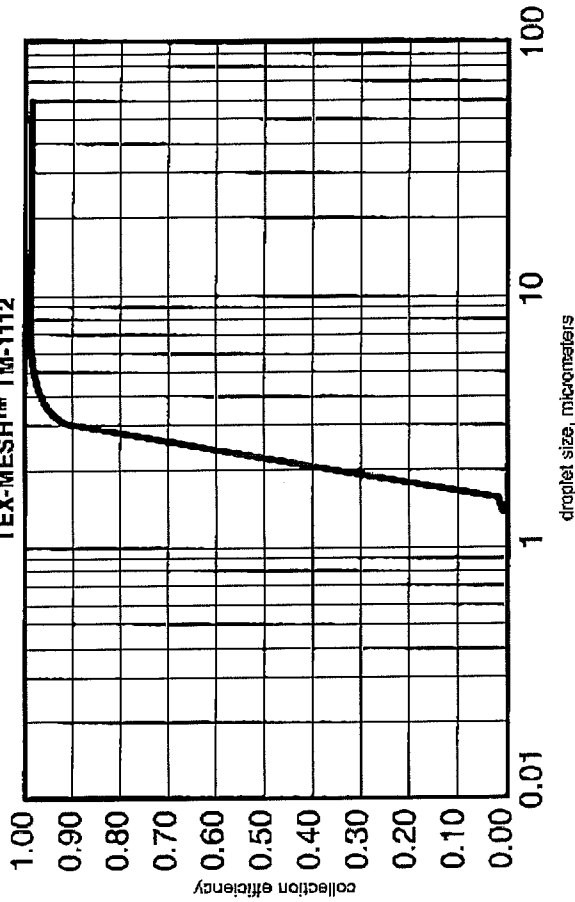
TEX-MESH™ TM-1109



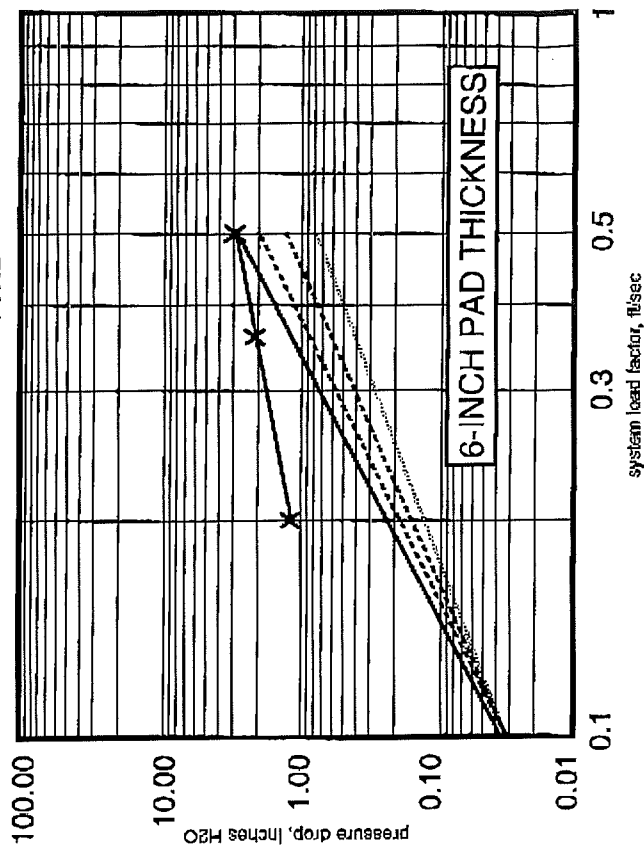
TEX-MESH™ TM-1109



TEX-MESH™ TM-1112



TEX-MESH™ TM-1112



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Facility I.D. # 001-000162

B & D Foods

### INCINERATOR BURNER AND SCRUBBER

Process: Hot Oil Cookers, Numbers I & II

Maximum Rate Input Capacity: 2.0 Tons/Hr.

Normal Maximum Feed Input: 1.5 Tons/Hr.

Total Tons per Year: 5,400.00

Normal Maximum Product Output: 1.23 Tons/Hr., 4,428 Tons/Yr.

Process Equipment

Type: Conveyor

Manufacturers:

Fryer#I, Food-design, Immerso-Cook, Model# 2395.01.900

Fryer#II, No change, same as before Maxon, M422

Feed Material: Beef and Poultry

Operating Schedule: 12 hour/day

6 days/week

50 weeks/year

Exhaust Data: ( Two (2)) Fryers, The exhaust for both fryers have been combined prior to entering the Scrubber/Incinerator

Stack ID entering the scrubber: 30" dia. (7.07 sq. ft.)

Stack Height: 36 ft.-0"

Stack Exit Dimension: 3.0 sq.ft.

Exit gas volume: 9,500 acfm

Exit gas temperature: 535 degrees F

Pollution Control Equipment

#I Fryer, Coalescer on fryer exhaust stack: Efficiency: 99.9% of PM10

Primary control equipment: Dry Scrubber

Manufacturer: Amistco Separation Products

Model# 10101, TM-1109

Percent efficiency: 99.93

Secondary control equipment: Incinerator, natural gas burner

Manufacturer: Maxon Corp.

Model No.: NP-II

Efficiency: 99.9%

Pressure drop: 1.5"w.c., scrubber plus 0.25"w.c., burner, Total: 1.75"w.c. delta P

#### Criteria Pollutant Estimated Emissions

Particulates: 0.0018 lbs./hr  
0.0032 tons/yr.

#### Uncontrolled Emissions

Toxic Pollutants: -0-

#### Controlled Emissions

Breathing: 0.0018 lbs./hr.  
0.0032 tons/yr.

Oil: 0.02 lbs./hr.  
0.036 tons/yr.